

REMARKS

I. Introduction

Pending claims 1-9 have been examined. The Examiner acknowledges that claims 6 and 9 contain allowable subject matter. Claims 1-5 and 7-8, however, are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,486,586 to Higashino et al. (hereinafter “Higashino”) in view of U.S. Patent No. 6,181,045 to Umeda (hereinafter “Umeda”). Applicant traverses this ground of rejection as follows.

II. Allowable Subject Matter

As noted above, the Examiner acknowledges that claims 6 and 9 contain allowable subject matter (Office Action: page 4). In particular, claims 6 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant withholds rewriting claims 6 and 9 in independent form at this time, pending the Examiner’s consideration of the following remarks.

III. Claim Rejections – 35 U.S.C. § 103(a)

As noted above, claims 1-5 and 7-8 stand rejected under § 103(a) as allegedly being unpatentable over Higashino in view of Umeda.

Claim 1, recites, *inter alia*, “a second electrically-insulating layer is formed so as to cover said first electrically-insulating layer and to extend to said electrically-insulating coating of said end portions of said base strands.”

In Higashino, an epoxy resin 102 (functioning as a first resin) is applied to the apex portions of coil end groups 16a and 16b, *i.e.*, the axial end portions of the coil end groups 16a and 16b (Higashino: col. 4, lines 43-46; and Fig. 3). Thereafter, a varnish 103 (functioning as a second resin) is applied so as to completely cover the coil end groups 16a and 16b, shielding material 101 and the epoxy resin 102 (Higashino: col. 4, lines 56-58; and Fig. 3). The varnish 103 permeates minute gaps between the shielding material 101 and the strands of wire 30, as well as between the strands of wire 30, thereby improving insulation performance and overall rigidity (Higashino: col. 4, lines 63-67; and Fig. 3).

Claim 1, however, also recites that “said first electrically-insulating layer has a modulus of elasticity that is larger than a modulus of elasticity of said second electrically-insulating layer.”

The Examiner alleges that Higashino discloses these features of claim 1 because the second layer of varnish 103, which promotes rigidity, is more rigid than the first layer of epoxy resin 102 (*Id.*). To the contrary, Higashino fails to disclose any modulus of elasticity for the epoxy resin 102 and the varnish 103, let alone the relationship of a first layer (*i.e.*, the epoxy resin) having a modulus of elasticity that is larger than that of a second layer (*i.e.*, the varnish), as recited in claim 1.

Furthermore, the Examiner’s allegation that the varnish 103 (second layer) disclosed in Higashino has a modulus of elasticity lower than that of the epoxy resin 102 (first layer) because the varnish, which promotes rigidity, is more rigid than the epoxy resin is flawed (*see* Office

Action: page 3). Generally, a material with a high modulus of elasticity (*e.g.*, glass) will be more rigid than a material with a low modulus of elasticity (*e.g.*, rubber). Thus, according to the Examiner's reasoning, Higashino is fundamentally different from the claimed invention and, at best, discloses that a second layer has a larger modulus of elasticity than a first layer, so as to actually teach away from the claimed invention.

Further still, claim 1 recites "joint portions between said end portions of said base strands being arranged into at least one row in a circumferential direction, wherein a first electrically-insulating layer is formed so as to cover each of said joint portions and to bridge a pair of said joint portions that is adjacent in at least one direction selected from a group including a radial direction and a circumferential direction."

In Higashino, an epoxy resin 102 (functioning as a first resin) is applied to the apex portions of coil end groups 16a and 16b (Higashino: col. 4, lines 38-46). These apex portions of the coil end groups 16a and 16b, however, are not joint portions. Instead, the apex portions of the coil end groups 16a and 16b are return portions 30a (Higashino: col. 4, lines 49-55). Thus, Higashino fails to teach or suggest, for example, that "a first electrically-insulating layer is formed so as to cover each of said joint portions," as recited in claim 1.

Furthermore, Umeda does not make up for these fundamental differences between Higashino and the claimed invention. Umeda discloses a stator having a stator winding constructed by joining a plurality of U-shaped conductor segments. Umeda, however, fails to teach or suggest, for example, "a first electrically-insulating layer is formed so as to cover each

of said joint portions and to bridge a pair of said joint portions that is adjacent in at least one direction selected from a group including a radial direction and a circumferential direction;” “a second electrically-insulating layer is formed so as to cover said first electrically-insulating layer and to extend to said electrically-insulating coating of said end portions of said base strands, and” “said first electrically-insulating layer has a modulus of elasticity that is larger than a modulus of elasticity of said second electrically-insulating layer.”

In view of the above, it is respectfully submitted that claim 1 is not rendered obvious by the proposed combination of Higashino in view of Umeda. Consequently, claims 2-5 and 7-8 are patentable over the proposed combination of Higashino in view of Umeda at least by virtue of their dependency.

IV. New Claims 10 and 11

Applicant adds new claims 10 and 11, which recite disclosed but previously unclaimed features (*see, e.g.*, Applicant’s specification: page 12, lines 22-24; and page 13, lines 7-10). It is respectfully submitted that no new matter is introduced by these amendments and that new claims 10 and 11 are patentable over the art of record at least by virtue of their dependency.

V. Formal Matters

A. Priority

The Examiner acknowledges Applicant’s claim for foreign priority under 35 U.S.C. § 119, including receipt of the priority document.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 10/755,478
Attorney Docket No. Q79321

B. Information Disclosure Statement

The Examiner provides a signed and initialed copy of the Form PTO/SB/08 submitted with the IDS filed on January 13, 2004, thereby acknowledging consideration of the reference cited therein.

VI. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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